

Most Current Water Quality Standards - Linear Events

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Identification_Information:

Citation:

Citation_Information:

Originator: US EPA

Publication_Date: 20011231

Title: Most Current Water Quality Standards - Linear Events

Description:

Abstract:

Designated uses (from State Water Quality Standards) for river segments, lakes, and estuaries. Most current Water Quality Standards Waterbodies coded onto route.rch (Transport and Coastline Reach) feature of the National Hydrography Dataset (NHD) to create Linear Events.

Purpose:

To be used to identify the spatial extent of waters listed under State Water Quality Standards. These waters can be linked to EPA's Water Quality Standards Database for query and display.

Supplemental_Information:

Procedures Used: State Water Quality Agencies supplied EPA's Office of Water with lists of waters with Designated Uses under State Water Quality Standards. These lists contained text which identified the locations of individual waters on their list. Many states also submitted GIS coverages and or maps that outlined the spatial extent of their listed waters. These base materials were used by EPA to code the spatial extent onto route.rch (Transport and Coastline Reach) feature of NHD to

create NHD - Linear Events. Using the EPA's NHD-Reach Indexing Tool (NHD-RIT), event tables were created and the reaches were identified with the Designated Uses supplied by the states. These event tables were then sent to each state for review and comment. The format of the reviewed data was state dependent. Formats consisted of hardcopy maps, shapefiles or coverages with events.

Revisions: Initial indexing was done and maps sent back to the state for review. In many cases, modifications were noted by the State and then corrections were made by RTI.

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 2001

Time_of_Day: Unknown

Currentness_Reference: Current as of December 2001

Status:

Progress: In work

Maintenance_and_Update_Frequency: Every 6 months (June and December).

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -180

East_Bounding_Coordinate: -60

North_Bounding_Coordinate: 80

South_Bounding_Coordinate: 0

Keywords:

Theme:

Theme_Keyword_Thesaurus: None

Theme_Keyword: Water Quality Standards, designated uses, reach indexing

Place:

Place_Keyword_Thesaurus: None

Place_Keyword: US, National

Temporal:

Temporal_Keyword_Thesaurus: None

Temporal_Keyword: Most current, 2000, 2001, 2002

Access_Constraints: Password protected until review is complete.

Use_Constraints:

This website is designed for state review of DRAFT Water Quality Standards (WQS) spatial data. Research Triangle Institute (RTI), under contract with EPA, georeferenced (or indexed) states' Water Quality Standards to the National Hydrography Dataset (NHD). EPA would like each state to have the opportunity to review the indexing work. Reviewers are asked to assess the accuracy of WQS reach indexing (georeferencing) efforts. More specifically, reviewers are asked to evaluate whether designated uses are assigned to the

appropriate reaches and to assess the accuracy of the locational information.

Point_of_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Bill Kramer

Contact_Organization: US EPA Headquarters

Contact_Address:

Address_Type: Mailing address.

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1200 Pennsylvania Avenue, NW Room 5233T, Mail Code 4305T
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State_or_Province: D.C.

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Security_Information:

Security_Classification_System: None

Security_Classification: UNCLASSIFIED

Security_Handling_Description: None

Native_Data_Set_Environment:

Windows NT, Windows 2000, ArcView 3.2 (used in conjunction with the Reach Indexing Tool (RIT) and the National Hydrography Dataset (NHD), and the Water Quality Standards Database (WQSDB), which contains designated use information as it was assigned by the States.

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report: See Logical Consistency Report: Chain-node topology present

Logical_Consistency_Report: Chain-node topology present

Completeness_Report: State review underway

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Statements of horizontal positional accuracy are based on accuracy statements made for USGS topographic quadrangle maps. These maps were compiled to meet National Map Accuracy Standards. For horizontal

accuracy, this standard is met if at least 90 percent of points tested are within 0.02 inch (at map scale) of their true positions. Additional offsets to positions may have been introduced where there are many features to improve the legibility of map symbols. In addition, the digitizing of maps is estimated to contain a horizontal positional error of less than or equal to 0.003-inch standard error (at map scale) in the two component directions relative to the source maps. Visual comparison between the map graphic (including digital scans of the graphic) and plots or digital displays of points, lines, and areas is used to assess the positional accuracy of digital data.

Linear features of the same type along the adjoining edges of data sets are aligned if they are within a 0.02-inch tolerance (at map scale). To align the features, the midpoint between the end of the corresponding features is computed, and the ends of features are moved to this point. Features outside the tolerance are not moved; instead, a feature of the type connector was added to join the features.

For more information, see the National Hydrography Dataset Concepts and Contents document (February 2000) available at <http://nhd.usgs.gov/chapter1/index.html>.

Vertical_Positional_Accuracy:

Vertical_Positional_Accuracy_Report:

Statements of vertical positional accuracy for elevation of water surfaces are based on accuracy statements made for USGS topographic quadrangle maps. These maps were compiled to meet National Map Accuracy Standards. For vertical accuracy, this standard is met if at least 90 percent of well-defined points tested are within one-half contour interval of the correct value. Elevations of water surface printed on the published map meet this standard; the contour intervals of the maps vary. These elevations were transcribed into the digital data; the accuracy of this transcription was checked by visual comparison between the data and the map.

For more information, see the National Hydrography Dataset Concepts and Contents document (February 2000) available at <http://nhd.usgs.gov/chapter1/index.html>.

Lineage:

Process_Step:

Process_Description:

Each state sent RTI a marked up map or existing GIS coverage denoting the location and extent of each waterbody. Using the EPA's NHD Reach Indexing Tool, event tables were created by conflating each State's data to NHD. Event identifiers were populated with State-provided designated use

waterbody codes.
Process_Date: 20011231

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 1

Longitude_Resolution: 1

Geographic_Coordinate_Units: Decimal Degrees

Geodetic_Model:

Horizontal_Datum_Name: NAD83

Ellipsoid_Name: GRS 1980

Semi-major_Axis: 6378137 meters

Denominator_of_Flattening_Ratio: 298.257222101

Entity_and_Attribute_Information:

Detailed_Description:

Entity_Type:

Entity_Type_Label: Linear event themes

Entity_Type_Definition:

Each linear event theme applies to section(s) of the National Hydrography Dataset (NHD), which is a comprehensive set of digital spatial data that contains information about surface water features such as lakes, ponds, streams, rivers, springs and wells. Within the NHD, surface water features are combined to form "reaches," which provide the framework for linking water-related data to the NHD surface water drainage network. These linkages enable the analysis and display of these water-related data in upstream and downstream order.

Entity_Type_Definition_Source: EPA's NHD Reach Indexing Tool

Attribute:

Attribute_Label: Event_id

Attribute_Definition:

Unique ID for an event created based on date and time when the event was created, and a sequential number to provide uniqueness for events created at the same time.

Attribute_Definition_Source: System created number

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 2000010100000100001

Range_Domain_Maximum: 9999123124000099999

Attribute:

Attribute_Label: F_meas

Attribute_Definition: Specifies the start point of the event along a route.

Attribute_Definition_Source: EPA's NHD Reach Indexing Tool

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 0

Range_Domain_Maximum: 200

Attribute:

Attribute_Label: T_meas

Attribute_Definition: Specifies to end point of the event along a route.

Attribute_Definition_Source: EPA's NHD Reach Indexing Tool

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 0

Range_Domain_Maximum: 200

Attribute:

Attribute_Label: Eoffset

Attribute_Definition:

Offset distance of event from associated NHD route reach location.

Attribute_Definition_Source: User input

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 0

Range_Domain_Maximum: 999999

Attribute:

Attribute_Label: Duu_id

Attribute_Definition:

Unique identifier of the digital update unit in the NHD database.

Attribute_Definition_Source: NHD

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 0000000001

Range_Domain_Maximum: 9999999999

Attribute:

Attribute_Label: Rch_code

Attribute_Definition:

Numeric code that uniquely identifies a reach in NHD, consisting of two parts: the first eight digits are the hydrologic unit code of the cataloging unit in which the reach is located; the last six digits are a sequentially-assigned number.

Attribute_Definition_Source: NHD

Attribute_Domain_Values:

Codeset_Domain:

Codeset_Name: NHD Reach codes

Codeset_Source: USGS NHD

Attribute:

Attribute_Label: Rch_date

Attribute_Definition:

Date that the reach code (Rch_code) was assigned, displayed as
YYYYMMDD.

Attribute_Definition_Source: NHD

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 19970101

Range_Domain_Maximum: 99991231

Attribute:

Attribute_Label: Attr_prg

Attribute_Definition: Indicates the attribute type or program being indexed.

Attribute_Definition_Source: Unknown

Attribute_Domain_Values:

Codeset_Domain:

Codeset_Name: Alphanumeric

Codeset_Source: ASCII

Attribute:

Attribute_Label: Attr_val

Attribute_Definition:

Value associated with the attribute program in the field Attr_prg.

Attribute_Definition_Source: Unknown

Attribute_Domain_Values:

Codeset_Domain:

Codeset_Name: Alphanumeric

Codeset_Source: ASCII

Attribute:

Attribute_Label: Entity_id

Attribute_Definition:

Identifier used to aggregate reaches into homogenous units. It is also used to
link the event table to external data sources.

Attribute_Definition_Source: Varies

Attribute_Domain_Values:

Codeset_Domain:

Codeset_Name: Alphanumeric

Codeset_Source: ASCII

Attribute:

Attribute_Label: State

Attribute_Definition: State abbreviation according to the FIPS standard.

Attribute_Definition_Source: User input

Attribute_Domain_Values:

Codeset_Domain:

Codeset_Name: Federal Information Processing Standard

Codeset_Source: Two digit FIPS state code (character).

Attribute:

Attribute_Label: Meta_id

Attribute_Definition: Link to the metadata table

Attribute_Definition_Source: Unknown

Attribute_Domain_Values:

Codeset_Domain:

Codeset_Name: Alphanumeric

Codeset_Source: ASCII

Attribute:

Attribute_Label: Meters

Attribute_Definition: Length of the linear reach (in meters).

Attribute_Definition_Source: NHD-RIT

Attribute_Domain_Values:

Range_Domain:

Range_Domain_Minimum: 0

Range_Domain_Maximum: 40,000,000

Overview_Description:

Entity_and_Attribute_Overview:

Linear event themes georeferenced to the National Hydrography Dataset (NHD).

Entity_and_Attribute_Detail_Citation:

The NHD Reach Indexing Tool User's Guide- June 2001.

<http://www.epa.gov/waters/georef/UserGuide.pdf>.

Distribution_Information:

Distributor:

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Distribution_Liability: None

Metadata_Reference_Information:

Metadata_Date: 20020321

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Metadata_Standard_Name:

Content Standard for Digital Geospatial Metadata, Federal Geographic Data Committee.

Metadata_Standard_Version: FGDC-STD-001-1998

Metadata_Time_Convention: Local TIME

Metadata_Security_Information:

Metadata_Security_Classification_System: None

Metadata_Security_Classification: Unclassified

Metadata_Security_Handling_Description: None

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